

Claims

1. Dispensing means for delivering a dose of a first liquid into a second liquid, the dispensing means comprising an enclosure and valve means connected to the enclosure, wherein the dispensing means is operable such that, when the enclosure contains a first liquid, raising a level of a second liquid relative to the dispensing means so as to subject the enclosure and valve means to hydrostatic pressure causes a dose of the first liquid to be displaced from the enclosure to establish a column of the first liquid that acts on the valve means and thereby increase the potential energy of the valve means, and subsequent lowering of the level of the second liquid relative to the dispensing means so as to reduce the hydrostatic pressure acting on the valve means causes the valve means to deliver the dose by release of the potential energy.
2. Dispensing means according to claim 1, wherein the dispensing means is adapted to dispense a plurality of individual doses in succession, one dose being delivered at each lowering of the level of the second liquid as a container in which the dispensing means is placed is repeatedly filled with, and emptied of, the second liquid.
3. Dispensing means according to claim 1 or 2, wherein the dispensing means is provided with support means for supporting the dispensing means in a container that is repeatedly filled with, and emptied of, the second liquid.
4. Dispensing means according to claim 3, wherein the support means is a hanger to support the dispensing means from a lip of the container.
5. Dispensing means according to any of claims 1 to 4, wherein the enclosure comprises an otherwise substantially rigid vessel that has a flexible portion, which, when subjected to hydrostatic pressure, is deformable so as to displace a dose of a first liquid contained in the vessel from the vessel.

6. Dispensing means according to any of claims 1 to 4, wherein the enclosure comprises a flexible sachet, which, when subjected to hydrostatic pressure, is deformable so as to displace a dose of a first liquid contained in the sachet from the sachet.

7. Dispensing means according to claim 6, wherein the flexible sachet is provided with at least one rigid member adapted to prevent pockets of the first liquid from forming in the sachet as doses of the first liquid are displaced from the sachet.

8. Dispensing means according to claim 7, wherein the at least one rigid member is formed from a material that has a density greater than that of the second liquid.

9. Dispensing means according to any preceding claim, wherein the dispensing means further comprises a vent chamber assembly operable to vent displaced air from the dispensing means as the column of the first liquid is established.

10. Dispensing means according to claim 9, wherein the vent chamber assembly comprises a vent chamber and first and second tubes, the vent chamber being connected to the enclosure by the first tube and to the valve means by the second tube.

11. Dispensing means according to claim 10, wherein the dispensing means is operable such that the column of the first liquid is established in the second tube.

12. Dispensing means according to claim 11, wherein the second tube is provided with capillary means operable to draw the first liquid along the second tube so as to accelerate the establishment of the column of the first liquid.

13. Dispensing means according to claim 12, wherein the capillary means comprises a wick, lumenous rod and/or rod with a plurality of fine longitudinal grooves formed on its external surface, the wick or rod being operable to draw the first liquid along the second tube.

14. Dispensing means according to claim 12, wherein the capillary means comprises a plurality of fine longitudinal grooves formed on the internal surface of the second tube.

15. Dispensing means according to any of claims 1 to 14, wherein the valve means comprises first and second elastic valve members joined so as to form a pocket, and biasing means operable to apply a tensile force to the first and second valve members so as to close the pocket to prevent a flow of the first liquid from the pocket, the valve means being operable such that hydrostatic pressure exerted on the exterior of the valve means tends to close the pocket.

16. Dispensing means according to any of claims 1 to 14, wherein the valve means comprises a valve body and a flexible membrane, the valve body having inlet and outlet channels between which flow of the first liquid is controlled by the flexible membrane, the valve means being operable such that hydrostatic pressure exerted on the exterior of the valve means tends to cause the flexible membrane to prevent flow of the first liquid between the inlet and outlet channels.

17. Valve means for controlling a flow of a first liquid, the valve means being adapted for attachment to an inlet tube and comprising a valve body and a flexible membrane, the valve means being operable such that, when attached to an inlet tube containing a column of a first liquid and immersed in a second liquid so as to subject the valve means to hydrostatic pressure, the hydrostatic pressure causes the flexible membrane to seal the valve body so as to prevent a flow of the first liquid through the valve body, and when a level of the second liquid is lowered relative to the valve means so as to reduce the hydrostatic pressure, the flexible membrane unseals the valve body so as to allow a flow of the first liquid through the valve body.

18. Valve means according to claim 17, wherein the valve body is formed with an inlet channel and an outlet channel, the flexible membrane being operable, when subjected to

hydrostatic pressure due to immersion of the valve means in the second liquid, to prevent flow of the first liquid from the inlet channel to the outlet channel.

19. Valve means according to claim 18, wherein the valve body is so configured that, in use, a first end of the outlet channel through which the first liquid enters the outlet channel is lower than a second end of the outlet channel through which the first liquid exits the outlet channel, such that when the valve means is subjected to hydrostatic pressure, the hydrostatic pressure acting at the first end of the outlet channel is greater than that acting at the second end of the outlet channel.